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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,775

05/04/2005

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23632 7590 02/02/2009  
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EXAMINER

NGUYEN, CAM N

ART UNIT

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1793

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,775	<b>Applicant(s)</b> KLAVER ET AL.	
	<b>Examiner</b> Cam N. Nguyen	<b>Art Unit</b> 1793	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/04/08 (an election).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 11-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-10 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/04/05, 03/27/06, 10/25/07, 11/04/08</u> .                  | 6) <input type="checkbox"/> Other: _____                          |



## DETAILED ACTION

### *Response to Election/Restrictions*

1. Applicant's election without traverse of Group II, claims 6-10 & 16-20, in the reply filed on 11/04/08 is acknowledged.
2. Claims 1-5 & 11-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/04/08.

### *Claim Objections*

3. Claim 6 is objected to because of the following informalities:  
  
In line 2, "therefore" should be changed to --thereof--.  
  
Appropriate correction is required.

### *Claim Rejections - 35 USC § 112 (Second Paragraph)*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.  
  
Claims 7 & 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- A. Regarding claim 7, the correct Markush terminology is --wherein the component is selected from the group consisting of elements of Group VIII of the Periodic Table of the Elements--.
- B. Regarding claim 9, the correct Markush terminology is --an element or compound selected from the group consisting of Group IIA, IIIB, IVB, VB, VIB, VIIB ~~or~~ and VIII of the Periodic Table of the Elements--.

### **Double Patenting**

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- A. Claims 6-10 & 17-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 & 14-17 of ***copending Application No. 10/517,098***. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

The claimed catalyst or catalyst precursor appears to be the same as the catalyst material recited in the copending application '098. While the instant claims recite that the carrier is an elongated particle having two protrusions...as opposed to three protrusions as recited in the copending application '098, it is inherent that the "three protrusions" limitation is encompassed by the instant claims in view of the open-ended transitional phrase "comprising" in the preamble of the instant claims.

B. Claims 6-10 & 17-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 & 17-39 of **U.S. Patent No. 7,198,845 B2**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

The claimed catalyst or catalyst precursor appears to be the same as the catalyst material recited in the US Pat. '845. While the instant claims recite that the carrier is an elongated particle having two protrusions...as opposed to three protrusions as recited in the US Pat. '845, it is inherent that the "three protrusions" limitation is encompassed by the instant claims in view of the open-ended transitional phrase "comprising" in the preamble of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Claim Rejections - 35 USC § 102(b)**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A. Claims 6-10 & 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Frayer et al., hereinafter referred to as “Frayer ‘777”, (US Pat. 4,133,777).

Frayer ‘777 discloses a hydrodesulfurization catalyst comprising Group VI and Group VIII metals with a promoting amount of Group IV-B metal on a non-cracking support, etc., the particles of the catalyst comprising elongated extrudates, which show in cross-section at least one groove defining protrusions and an average concavity index between 1.01 and 1.35, the shortest distance between the depth of said at least one groove and the center in said cross-section being between 1/30 and 1/20 inch (see col. 13, claim 1). The particles have a plurality of alternating longitudinal grooves and protrusions (see col. 13, claim 2). The non-cracking support is alumina (see col. 14, claim 9). The diameter of the catalyst particle is twice the shortest surface-to-central axis dimension (see col. 2, ln 60-62). See also entire reference for further details.

It is inherent that the disclosed catalyst would possess all of characteristics as being required in the instant claim 6 because the catalyst is the same.

B. Claims 6-10 & 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by JP ‘445, (JP 55119445).

JP ‘445 discloses desulfurization catalysts comprising hydrogenation components on porous alumina which are made into columnar bodies, wherein 3-6 circles of the same diameter as that of the central circle are disposed around the circle of diameters about 0.4-5 mm in cross-

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section at an equal angle, the center-to-center distance of the central circle and circumferential circles is made about 1/4-3/4 of the diameter of the central circle, etc. (see Abstract).

The claimed shaped catalyst does not appear to patentably distinguish from the disclosed catalyst. Thus, the claims are anticipated by the teaching of the reference.

**Claim Rejections - 35 USC § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frayer et al., hereinafter referred to as "Frayer '777", (US Pat. 4,133,777).

Frayer '777 discloses a hydrodesulfurization catalyst as described above, except for the properties recited in the instant claim 17 and the titania carrier recited in the instant claim 20.

Regarding claim 17, the disclosed catalyst has a diameter "twice" the diameter of the central axis instead of "between 0.87 to 1.15 times" that the claim requires. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have shaped the catalyst into the desired shapes, sizes, diameters, lengths, and dimensions, etc. in order to achieve the desired catalyst structure because they are results effective variables, in view of *In re Boesch*.

Regarding claim 20, while Frayer '777 does not disclose "titania" carrier, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have



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replaced the alumina support of Frayer '777 with a titania support or carrier because titania is a known and useful catalyst support material.

### **Citations**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared.

### **Conclusion**

9. Claims 1-20 are pending. Claims 6-10 & 17-20 are rejected. Claims 1-5 & 11-16 are withdrawn due to nonelected (distinct) invention(s). No claims are allowed.

### **Contacts**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner CAM N. NGUYEN, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Primary Examiner

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/C. N. N./

January 29, 2009